UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,286	11/30/2000	Wilson Tam	821937600001	3307

7590 02/14/2006

David B. Cochran
Jones, Day, Reavis & Pogue
North Point
901 Lakeside Avenue
Cleveland, OH 44114

EXAMINER	
PHAN, MAN U	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/726,286	TAM ET AL.	
	Examiner	Art Unit	
	Man Phan	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 13-16* is/are rejected.

7)☒ Claim(s) *10-12,17 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to applicant's 12/08/2005 Amendment in the application of Tam et al. for the "Unified distributed architecture for a multi-point video conference and interactive broadcast systems" filed 11/38/2000. Claims 10, 13, 17 have been amended. Claims 1-18 are pending in the present application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-2, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldszmidt et al. (US#6,195,680) in view of Li (US#6,799214).

With respect to claims 1 and 2, both Goldszmidt et al. (US#6,195,680) and Li (US#6,799214) disclose a novel method and system for multipoint video conference controlling, according to the essential features of the claims. Goldszmidt et al.(US#6,195,680) discloses in Figs. 6&7 the block diagrams illustrated a network architecture for a video communication system, in which the control server 640 is responsible for handling the entrance and departures of multimedia source and reflectors into the application. It preferably also monitors the workload of the reflectors 610 and uses the workload-related heuristics for its client admission process. A TCP Connection Router can be implemented within the control server 640 to control client admission as well as to choose and dispatch primary and secondary (also called "alternate") servers for and to the client 620. As depicted, a manager 640 with a controller 641 and dispatcher 642 subsystem; a plurality of reflectors 610 grouped into primary and secondary (tertiary, etc.) sets R1 . . . Rn; one or more client playback stations 620; one or more multimedia source capture stations 630; and a control server 640. The manager component 640 configures the system. Within the manager, the controller 641 assigns reflectors 610 to sets (R1, R2, . . . Rn) and sources 630 to reflectors. The dispatcher 642 assigns primary and secondary reflectors to a client based on the desired source they request to receive and on the system load characteristics. A multimedia source capture station S2 generates the audio and video data and delivers the stream to the reflectors 610. The reflectors 610 receive the audio and video data, and provide scalability by replicating the stream and delivering it to the client playback station C1. The client playback station C1 receives the stream and decodes the audio/video for the human user (Col.

14, lines 61 plus). Goldszmidt further teaches the use of so-called "reflector" technology. The reflector technology is used in applications to provide real-time audio and video streaming over the Internet. Reflectors are servers that manage the distribution of audio and video streams to their receivers. They can be cascaded and scaled to handle increased demand for a broadcast. Multimedia streams are replicated at each reflector and delivered to multiple receivers. By simply adding more reflectors, a broadcast is capable of supporting large numbers of clients. Goldszmidt further disclose in Figs. 6-8 block diagrams illustrated a distributed network utilizing a plurality of reflectors which receive the audio and video data, and provide scalability by replicating the stream and delivering it to the various client playback stations in the network (Col. 14, lines 64 plus).

However, Goldszmidt does not disclose expressly the configuration of reflectors to service client machines based on a network proximity between the reflector and the client machine. In the same field of endeavor, Li (US#6,799,214) discloses a content delivery network, which redirect end users to available servers that contain copies of the requested content and that are close to (quickly accessible by) the end users (*network proximity between the reflector and the client machine*) (Col. 1, lines 61 plus). In the example system of Fig. 2, mirror sites 22 and 100 are employed in the Japanese network 94. These mirror sites 22 and 100 generally contain copies of content stored in content provider original site 96. Access to a mirror site located within the same network as the local or requesting end user 92 often results in faster access time. Thus, in the example of FIG. 2, when end user 92 in Japan requests data from content provider original site 96, it would generally be much faster if end user 92 was able to access the data from a mirror site 22 or 100 in Japan, rather than accessing the image from content provider original

site 96 in the United States and transferring the image across various Internet gateways. Of course, end user 92 must somehow be informed that the desired content can be accessed from a closer (e.g. more quickly accessible) source (See also Fig. 3, Col. 2, lines 13 plus). It's noted that the *reflector servers or Mirror sites* are used to make access faster when the original site may be geographically distant to its end users or when the original site may not have a high-speed connection to the Internet. The "*closest*" reflector site is the site for which response time is the fastest. In many instances, reflector sites, at various geographic locations, are used to provide the same download capability, but at a site "closer to" the end user or at a site having more excess capacity to serve download requests. For example, if a popular Web site is located in New York, mirror sites might be located in Los Angeles, London, and Tokyo. Accordingly, if a European user is having difficulty accessing the original New York site, he can hotlink to the mirror site (*reflector server*) that is geographically closest, i.e. London.

Regarding claims 6-7, they are method claims corresponding to the apparatus claims 1 and 2 above. Therefore, claims 6-7 are analyzed and rejected as previously discussed with respect to claims 1-2.

One skilled in the art would have recognized the need for effectively and efficiently administering the video conference and controlling the A/V signal flow, and would have applied Li's novel use of the content delivery networks utilizing the reflector server into Goldszmidt's teaching of the distribution of audio and video streams to the various clients in the network. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Li's system and method for efficient content delivery using

redirection pages received from the content provider original site and the mirror sites into Goldszmidt's client-based dynamic switching of streaming server for fault tolerance and load balancing with the motivation being to provide a method and system for conducting a video conference or broadcast over a distributed network in which audio and video signals generated by one or more participants in the video communication session.

5. Claims 3-5 and 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldszmidt et al. (US#6,195,680) in view of Li (US#6,799214) as applied to the claims above, and further in view of Kenner et al. (US#6,421,726).

With respect to claims 3-5, these claims differ from the claims above in that the claims require the client program includes an audio/visual viewer with a codec configured to display the audio/visual signal received from the reflector. In the same field of endeavor, Kenner et al. (US#6,421,726) discloses a system and method whereby a user can acquire network performance information for a dynamic and distributed multipurpose network, and use this information to identify and select optimum delivery sites or servers from which to receive computer data, specifically multimedia content, as well as to select the particular type of multimedia content viewable by the user. Such delivery sites, servers, and content type are selected so as to increase network capacity, distribute server load, reduce transmission delays between the server and the user, and reduce obstacles to viewing the multimedia content. Fig. 1 illustrated a network topology of a system, in which the user terminal includes the uses of a configuration utility 34 and a client program 36, and the browser 38 with installed CODECs 110-114. The video player "CODEC" program, or COmpressor/DECompressor, often located at a user's multimedia

terminal for decompression of a video. Generally speaking, a single CODEC program can only recognize and decompress a single compression format (Col. 8, lines 18 plus and Col. 18, lines 14 plus). Furthermore, the most relevant of the ITU standards is H.323, which defines audio/visual services over LANs for which quality of service cannot be guaranteed (see e.g., "Draft Recommendation H.323: Visual Telephone Systems and Equipment for Local Area Networks Which Provide A Non-Guaranteed Quality of Service," (May 28, 1996), which is hereby incorporated herein by reference in its entirety). This standard specifies a variety of audio and video coders and decoders (CODECs) as well as signaling protocols to negotiate capabilities and setup and manage connections (See Goldszmidt et al. Col. 1, lines 58 plus).

Regarding claims 8-9, they are method claims corresponding to the apparatus claims 3-5 above. Therefore, claims 8-9 are analyzed and rejected as previously discussed with respect to claims 3-5.

One skilled in the art would have recognized the need for effectively and efficiently administering the video conference and controlling the A/V signal flow, and would have applied Kenner's novel use of CODEC programs at the user terminal for displaying audio/visual viewer, and Li's novel use of the content delivery networks utilizing the reflector server into Goldszmidt's teaching of the reflector server in manages the distribution of audio and video streams to the various clients in the network. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Kenner's system and method for selection and retrieval of diverse types of video data on a computer network, and Li's system and method for efficient content delivery using redirection pages received from the content provider original site and the mirror sites into Goldszmidt's client-based dynamic

switching of streaming server for fault tolerance and load balancing with the motivation being to provide a method and system for conducting a video conference or broadcast over a distributed network in which audio and video signals generated by one or more participants in the video communication session.

6. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldszmidt et al. (US#6,195,680) in view of Li (US#6,799214) as applied to the claims above, and further in view of Krishnaswamy et al. (US#6,909,708).

With respect to claims 13-16, Goldszmidt et al. (US#6,195,680) and Li (US#6,799214) disclose a novel method and system for multipoint video conference controlling as in paragraph 4 above. Goldszmidt further disclose in Figs. 6-8 block diagrams illustrated a distributed network utilizing a plurality of reflectors which receive the audio and video data, and provide scalability by replicating the stream and delivering it to the various client playback stations in the network (Col. 14, lines 64 plus). Goldszmidt's system includes: a control server; two or more streaming servers, and a plurality of client agents. The control server is preferably a scalable server that is capable of handling a requests from a large number of incoming client agents and redirecting them to the streaming servers that are providing the multimedia data. The control server assigns different identifiers to the streaming servers for delivering the multimedia data, and uses these identifiers to group these streaming servers into two or more different sets. The streaming servers are used to deliver the real-time multimedia streams to the client agents. To receive a multimedia stream, client agents are given an identifier to connect to a server in one of the sets. Each client agent receives the multimedia stream from a streaming server, performs the

appropriate processing (e.g., decompression, scaling) on the stream and renders the multimedia output. Each client agent can be provided with a primary server identifier as well as a secondary server set identifier. The primary entry characterizes the primary streaming server in the set of servers the client agent is connecting to. The secondary entry characterizes the set containing an alternate server for the client agent. When a client detects a failure or overload, the client sends a switch request to the control server, which then selects a server in the secondary set and redirects the client agents of the primary server to the selected alternate server. Thus, the client agents can continue to receive the multimedia streams with minimal or no interruption (Col. 3, lines 28 plus).

However, Goldszmidt and Li do not disclose expressly the step of generating a digital ticket for each of the participants includes a reference time, data and controller. In the same field of endeavor, Krishnaswamy et al. (US#6,909,708) discloses the Video-conference Scheduling: A user can navigate through the VMDI or Internet 10 WWW forms, or communicate with a human video operator to schedule a multi-point conference. This information is stored on the Reservation Engine 11. The other conference participants are notified of the schedule with a video-mail, e-mail message or otherwise. There will be an option to remind all registered conference participants at a particular time (e.g. 1 hour before the conference), through video-mail (or e-mail, voice-mail, paging service or any other available notification method). The MCU (video bridge) can call each participant 12, or H.324 users can dial In to the MCU at the scheduled time 12. When people want to schedule a multi-party video-conference, they can specify the participants and time of the conference on this system. Configuration can be done

with the help of a human Video Operator or by some other form entry method (Col. 126, lines 5 plus).

One skilled in the art would have recognized the need for effectively and efficiently administering the video conference and controlling the A/V signal flow, and would have applied Krishnaswamy's novel use of the video conference scheduling and Li's teaching of the content delivery networks utilizing the reflector server into Goldszmidt's teaching of the reflector server in manages the distribution of audio and video streams to the various clients in the network. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Krishnaswamy's system, method and article of manufacture for a communication system architecture including video conferencing and Li's system and method for efficient content delivery using redirection pages received from the content provider original site and the mirror sites into Goldszmidt's client-based dynamic switching of streaming servers for fault tolerance and load balancing with the motivation being to provide a method and system for conducting a video conference or broadcast over a distributed network in which audio and video signals generated by one or more participants in the video communication session.

Allowable Subject Matter

7. Claims 10-12 and17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest wherein the network architecture includes an audio/visual viewer, the audio/video viewer comprising a network interface configured to received audio/video signals from a plurality of participants; a codec for compressing and decompressing audio/video signals; a mixer for mixing the audio signals transmitted from a plurality of participants; and a video display for displaying simultaneously displays each visual signal from each participant of the plurality of participants, as specifically recited claim 17; receiving a login request from a VC session participant, determining a VC session in which the participant will participate based on the login request, evaluating the performance of audio/visual processors over a network implementing the VC session based on the audio/visual processor evaluation, as specifically recited claim 10.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

TheWeinman, JR. (US#2001/0047412) is cited to show the method and apparatus for maximizing distance of data mirrors

The Li (US#6,799,214) is cited to show the system and method for efficient content delivery using redirection pages received from the content provider original site and the mirror sites.

The Carney et al. (US#2002/0120518) is cited to show the system and method for delivering out of home programming.

The Emens et al. (US#6,606,643) is cited to show the method of automatically selecting a mirror server for web based client-host interaction.

The Kenner et al. (US#6,003,030) is cited to show the system and method for optimized storage and retrieval of data on a distributed computer network.

The Kenner et al. (US#6,112,239) is cited to show the system and method for server side optimization of data delivery on a distributed computer network.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about

the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

Feb 09, 2006

MAN U. PHAN
PRIMARY EXAMINER